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VERIZON
PATENT MANAGEMENT GROUP
1515 N. COURTHOUSE ROAD
SUITE 500
ARLINGTON, VA 22201-2909

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| EXAMINER |
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NGUYEN, CHAU T

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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patents@verizon.com

DETAILED ACTION

1. Applicant's amendment filed on 04/09/2008 has been entered. Claims 1-34 are presented for examination.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 32 been renumbered 33.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 14-26 and 31-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. Claims 14-26 and 31-34 are device claims which contain means plus functions such as "means for identifying", "means for selecting" and "means for finding", and these means plus functions are considered as programs or software per se. There are no hardware limitations included in the body of claims 14-26 and 31-34. Therefore, claims 14-26 and 31-34 are not statutory.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims 1, 14 and 27-34 contain subject matter "temporal range" and "the term score of a term is weighted according to a temporal position of the term within the temporal range" which were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Even though applicant(s) pointed out paragraphs [0037]-[0044] and [0053]-[0055] in the specification and Figures 2-5 for supporting amended limitations in claims 1, 14, and 27-34, but the examiner could not find anything that relates to "temporal range". The specification of page 7, paragraph [0027] recites "finding documents which relate to a portion of a temporal document includes (a) in response to a signal of interest at a particular time during the temporal document, identifying a portion of the temporal document for which related documents are to be found". Therefore, for the purpose of this examination, "temporal range" is interpreted as "a portion of temporal document" as described in the specification.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The term "temporal range" in claims 1, 14 and 27-34 is a relative term which renders the claim indefinite. The term "temporal range" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification of page 7, paragraph [0027] recites "finding documents which relate to a portion of a temporal document includes (a) in response to a signal of interest at a particular time during the temporal document, identifying a portion of the temporal document for which related documents are to be found". Therefore, for the purpose of this examination, "temporal range" is interpreted as "a portion of temporal document" as described in the specification.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1, 3-8, 11-14, 16-21, and 24-30 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8, 10-19 and 21-22 of parent U.S. Patent No. 6,757,866. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims 1, 3-8, 11-14, 16-21, and 24-30 of the instant application define an obvious variation of the invention claimed in US Patent No. 6,757,866.

13. Claims 1, 3-8, 11-14, 16-21, and 24-30 of the instant application is anticipated by patent claims 1-8, 10-19 and 21-22 (U.S. Patent No. 6,757,866) in that claims 1-8, 10-

19 and 21-22 of U.S. Patent No. 6,757,866 contain all the limitations of claims 1, 3-8, 11-14, 16-21, and 24-30 of the instant application. Claims 1, 3-8, 11-14, 16-21, and 24-30 of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-3, 5-16, and 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wistendahl et al. (Wistendahl), US Patent Number 5,708,845, Barr et al. (Barr), US Patent No. 5,873,076 and further in view of Liddy et al. (Liddy), US Patent No. 5,963,940.

16. As to independent claims 1 and 14, Wistendahl discloses a method for finding documents which relate to a portion of a temporal document, comprising:

(a) in response to a signal of interest at a particular time during the temporal document, identifying a temporal range of the temporal document for which related documents are to be found (Wistendahl et al., col. 2, lines 41-58, col. 3, lines 38-48, and col. 7, lines 55-59, and col. 8, lines 38-67: as the movie (temporal document) runs, the user can point the remote control pointer to a designated actor or object appearing on

the television display and click on the desired object (portion of the movie or temporal range);

(b) selecting text associated with the temporal range of the temporal document identified (col. 7, lines 49-63 and col. 8, lines 38-65: user clicking on the movie “The Maltese Falcon”);

However, Wistendahl do not teach (c) finding the related documents by use of information retrieval techniques as applied to the selected text, wherein the related documents are selected from a collection of documents according to scores associated with the documents.

In the same field of endeavor, Barr et al. disclose a searching/retrieval system which can query a library or database and identify not only text documents, but also multi-media files stored on the library or database that are relevant to query (col. 2, line 59 – col. 3, line 54). Barr et al. also disclose accepting a query and returning a single search results list having both text and multi-media information (temporal document), and query server performs a relevance ranking on each of the textual documents and multi-media files identified by the search by generating a relevance score corresponding to each of the entries on the search result list, and this relevance is based on the term location information contained in index database, and in part on the relative proximity within the document file of terms forming the search query (col. 12, lines 54-65, col. 13, lines 30-67 and col. 24, lines 19-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wistendahl and Barr to include finding

the related documents by use of information retrieval techniques as applied to the selected text, wherein the related documents are selected from a collection of documents according to scores associated with the documents. Barr suggests that assigning scores associated with documents identified during a query search would indicate the degree to which the document relates to the subject.

However, Wistendahl and Barr do not explicitly disclose said scores for each document based on a summation of term scores for at least a subset of the terms of the selected text, the term score of a term is weighted to a temporal position of the term within the temporal range.

The specification of page 7, paragraph [0027] recites "The related documents may be selected from the collection according to the scores achieved when evaluating documents in collection according to a formula giving scores to documents depending upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified." Therefore, the limitation "the term score of a term is weighted to a temporal position of the term within the temporal range" is interpreted as "the term score of a term is weighted depending upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified."

Liddy discloses the scores are an indication of the strength of the association between the term and the document, and for each document the within document Term Frequency (TF) is calculated; the product of TF and the Inverse Document Frequency (IDF) is used as the basis for the postings score - a measure of the relative prominence

of a term compared to its occurrence throughout the corpora, and TF.IDF scores are cataloged for a varying number of logical paragraphs in a given document (col. 16, lines 1-23). One of ordinary skill in the art would have acknowledged that the term score (term frequency) of a term proportional to an inverted document frequency of the term from the formula TF.IDF, and where TF is the numbers of occurrences of a term within a given document (col. 22, lines 12-25). Liddy further discloses that different sources of evidence are used to compute individual measures of scores between the query and a given document and the individual scores are combined or summed to form a single relevance score (col. 22, line 1 - col. 23, line 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Liddy with Wistendahl and Barr to include said scores for each document based on a summation of term scores for at least a subset of the terms of the selected text, the term score of a term is weighted to a temporal position of the term within the temporal range. Liddy suggests that the product of TF.IDF for a given term in a document provides a quantitative indication of a term's relative uniqueness and importance for matching purposes.

17. As to dependent claims 2 and 15, Wistendahl, Barr and Liddy disclose wherein the temporal document is video or audio material (Wistendahl, col. 7, lines 49-63).

18. As to dependent claims 3 and 16, Wistendahl, Barr and Liddy disclose wherein the video material is stored on a video server inasmuch as this element is inherent in

the teaching of large digital libraries transmitted to subscribers. (Wistendahl et al., col. 6, line 58, col. 7, line 6.)

19. As to dependent claims 5 and 18, Wistendahl, Barr and Liddy disclose wherein the selected text is the closed-captioned text associated with the temporal range of the temporal document (Wistendahl et al., col. 7, lines 55-59: the selected text is pop-up movie trivia, which is the equivalent of close-captioned text.)

20. As to dependent claims 6 and 19, Wistendahl, Barr and Liddy disclose the temporal document including text as discussed above regarding claims 5 and 18.

21. As to dependent claims 7 and 20, Wistendahl, Barr and Liddy disclose wherein the document text appearing to the user varies with time and the selected text is included within the temporal range of the temporal document (Wistendahl et al., col. 7, lines 53-59).

22. As to dependent claims 8 and 21, Wistendahl, Barr and Liddy disclose wherein the document text includes news bulletins, weather, sports scores or stock transaction or pricing information (Barr et al., col. 31, line 43 – col. 32, line 21).

23. As to dependent claims 9 and 22, Wistendahl, Barr and Liddy disclose wherein the related documents are accessed through a network (Wistendahl et al., col. 5, lines 14-15. and Barr et al., col. 8, line 50 – col. 9, line 22).

24. As to dependent claims 10 and 23, Wistendahl, Barr and Liddy disclose further including selecting the related documents from among a collection of documents which may be accessed through the network, by utilizing databases comprising information about the collection (Wistendahl et al., col. 5, lines 14-15; col. 8, lines 66-67 and Barr et al., col. 8, line 50 – col. 9, line 22).

25. As to dependent claims 11 and 24, Wistendahl does not teach, but it would have been obvious to one of ordinary skill in the art to implement, selecting a predetermined number of documents because it was well known in the art to limit search results to a predetermined number and one of ordinary skill in the art would have recognized that this provided the benefit of not overwhelming the user, and moreover would have recognized that documents was an upper limit of the number of documents that could comfortably be retrieved.

26. As to dependent claims 12 and 25, Wistendahl, Barr and Liddy disclose wherein evaluating documents in the collection includes accessing compressed document surrogates (Wistendahl, col. 2, lines 16-28).

27. As to dependent claims 13 and 26, Wistendahl, however, does not explicitly disclose wherein related documents are selected from the collection by a server which is distinct from the server which receives the signal of interest.

Barr discloses in col. 8, line 50 – col. 9, line 22 that a data center includes session server 114 for receiving a search query from user and query server 116 for sending search results information, thus session server 114 and query server 116 are distinct from each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Barr with Wistendahl to include separate servers, one for receiving the information, and the other for processing the information, and thus separate servers would enhance the system and be easier for maintenance.

28. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wistendahl, Barr and Liddy as discussed in claims 1-3, 5-16, and 18-26 above, and further in view of Witteman, US Patent Number 6,243,676.

29. As to dependent claims 4 and 17, Wistendahl, Barr and Liddy, however, do not explicitly disclose wherein the selected text is determined by application of speech recognition techniques to the audio component of the portion of the temporal document identified.

Witteman discloses when a word or phrase (text) has been identified, the word or phrase is sent to the speech recognizer to search recent audio feeds for that word or phrase (Abstract and col. 4, lines 49-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings Witteman with Wistendahl, Barr and Liddy to include the selected text is determined by application of speech recognition techniques to the audio component of the portion of the temporal document identified. Witteman's system provides text feed which is searchable and aligned with the audio feed so the user can search for the item of interest and can either read the text feed or listen to the audio feed.

30. Claims 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wistendahl, Barr and Liddy as discussed in claims 1-3, 5-16, and 18-26 above, and further in view of Herz et al. (Herz), US Patent Number 5,835,087.

31. As to dependent claims 27 and 31, Wistendahl, Barr and Liddy, however, do not explicitly disclose wherein the temporal range precedes the particular time of the signal of interest.

In the specification, page 11, paragraph [0039] recites "the interest of the user in the content of the temporal document may be expressed as a function $W(t)$ of the time t prior to the signal indicating interest being given. In the same field of endeavor, Herz discloses computing weighted sum of selected normative attributes of target object,

retrieving summarized weighted relevance feedback data, and then computing topical interest of target object for selected user based on relevance feedback from all user (Figure 12 and col. 18, line 37 – col. 19, line 30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Herz with Wistendahl, Barr and Liddy to include the interest of the user in the content of the temporal document may be expressed as a function $W(t)$ of the time t prior to the signal indicating interest being given. Herz suggests that computing the weighted sum of the identified weighted selected attributes to determine the intrinsic quality measure

32. Claims 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wistendahl, Barr and Liddy as discussed in claims 1-3, 5-16, and 18-26 above, and further in view of Wiegand et al. (Wiegand), US Patent Number 6,807,231.

33. As to dependent claims 28 and 32, Wistendahl, Barr and Liddy, however, do not explicitly disclose each temporal position within the temporal range is weighted equally.

Wiegand discloses the weighted superposition, all segments or blocks of image document are considered equally (col. 5, line 58 - col. 6, line 34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wiegand with Wistendahl, Barr and Liddy to include each temporal position within the temporal range is weighted equally for the purpose of easily predicting relative to current frame at time t_{n+1} .

34. Claims 29-30 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wistendahl, Barr and Liddy as discussed in claims 1-3, 5-16, and 18-26 above, and further in view of Irie et al. (Irie), US Patent Number 5,525,808.

35. As to dependent claims 29 and 33, Wistendahl, Barr and Liddy, however, do not explicitly disclose wherein the weight of each temporal position within the temporal range increases from a beginning point of the range to a second point of the range, is weighted equally from the second point of the range to a third point of the range, and decreases from the third point of the range to an end point of the range.

In the specification, applicant pointed out figures 2-5 for supporting this limitation. In the same field of endeavor, Irie discloses in Figure 8 that the weight of each position increases from the beginning point to the second point, is weighted equally to 1 from the second point to a third point, and decreases from the third point to an end point.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Irie with Wistendahl, Barr and Liddy to include the weight of each temporal position within the temporal range increases from a beginning point of the range to a second point of the range, is weighted equally from the second point of the range to a third point of the range, and decreases from the third point of the range to an end point of the range for the purpose of easily predicting the next weight of each temporal position within the temporal range.

36. As to dependent claims 30 and 34, Irie discloses each temporal position within the temporal range is weighted according to a discrete two stage exponential function (col. 89, lines 9-22).

Response to Arguments

In the remarks, Applicant(s) argued in substance that

A) No claim of the '866 patent recites "identifying a temporal range" and weighting terms "according a temporal position of the term within the temporal range" is not an obvious variation of the subject matter claimed in the '866 patent.

In reply to argument A, as the examiner pointed out that the specification of page 7, paragraph [0027] recites "finding documents which relate to a portion of a temporal document includes (a) in response to a signal of interest at a particular time during the temporal document, identifying a portion of the temporal document for which related documents are to be found". Therefore, for the purpose of this examination, "temporal range" is interpreted as "a portion of temporal document" as described in the specification. Thus, "a portion of temporal document" is similar to limitation a) of claim 1 in the '866 patent.

Similarly, the specification of page 7, paragraph [0027] recites "The related documents may be selected from the collection according to the scores achieved when evaluating documents in collection according to a formula giving scores to documents depending upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified." Therefore, the

limitation "the term score of a term is weighted to a temporal position of the term within the temporal range" is interpreted as "the term score of a term is weighted depending upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified", which is similar to limitation d of claim 1 in the '866 patent.

B) Wistendahl does not disclose "identifying a temporal range".

In reply to argument B, Wistendahl et al., col. 2, lines 41-58, col. 3, lines 38-48, and col. 7, lines 55-59, and col. 8, lines 38-67: as the movie (temporal document) runs, the user can point the remote control pointer to a designated actor or object appearing on the television display and click on the desired object (portion of the movie or temporal range).

C) The prior art does not disclose "the term score of a term is weighted according to a temporal position of the temporal range."

In reply to argument C, the specification of page 7, paragraph [0027] recites "The related documents may be selected from the collection according to the scores achieved when evaluating documents in collection according to a formula giving scores to documents depending upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified." Therefore, the limitation "the term score of a term is weighted to a temporal position of the term within the temporal range" is interpreted as "the term score of a term is weighted depending

upon the occurrence in the documents of terms which occur in text associated with the portion of the temporal document identified.”

Liddy discloses the scores are an indication of the strength of the association between the term and the document, and for each document the within document Term Frequency (TF) is calculated; the product of TF and the Inverse Document Frequency (IDF) is used as the basis for the postings score - a measure of the relative prominence of a term compared to its occurrence throughout the corpora, and TF.IDF scores are cataloged for a varying number of logical paragraphs in a given document (col. 16, lines 1-23). One of ordinary skill in the art would have acknowledged that the term score (term frequency) of a term proportional to an inverted document frequency of the term from the formula $TF \cdot IDF$, and where TF is the numbers of occurrences of a term within a given document (col. 22, lines 12-25). Liddy further discloses that different sources of evidence are used to compute individual measures of scores between the query and a given document and the individual scores are combined or summed to form a single relevance score (col. 22, line 1 - col. 23, line 50).

D) The prior does not teach the dependent claims 27-34.

In reply to argument D, applicant's arguments with respect to claims 27-34 have been considered but are moot in view of the new ground(s) of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., temporal range precedes the particular time of the signal of interest, each temporal position within the temporal range is weighted equally, etc...) to the claims which significantly affected the scope thereof

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The examiner can normally be reached on 8:30 am – 5:30 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton, can be reached on (571) 272-4137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from 703-872-9306 to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

/Rachna S Desai/
Primary Examiner, Art Unit 2176